

FIG.2A

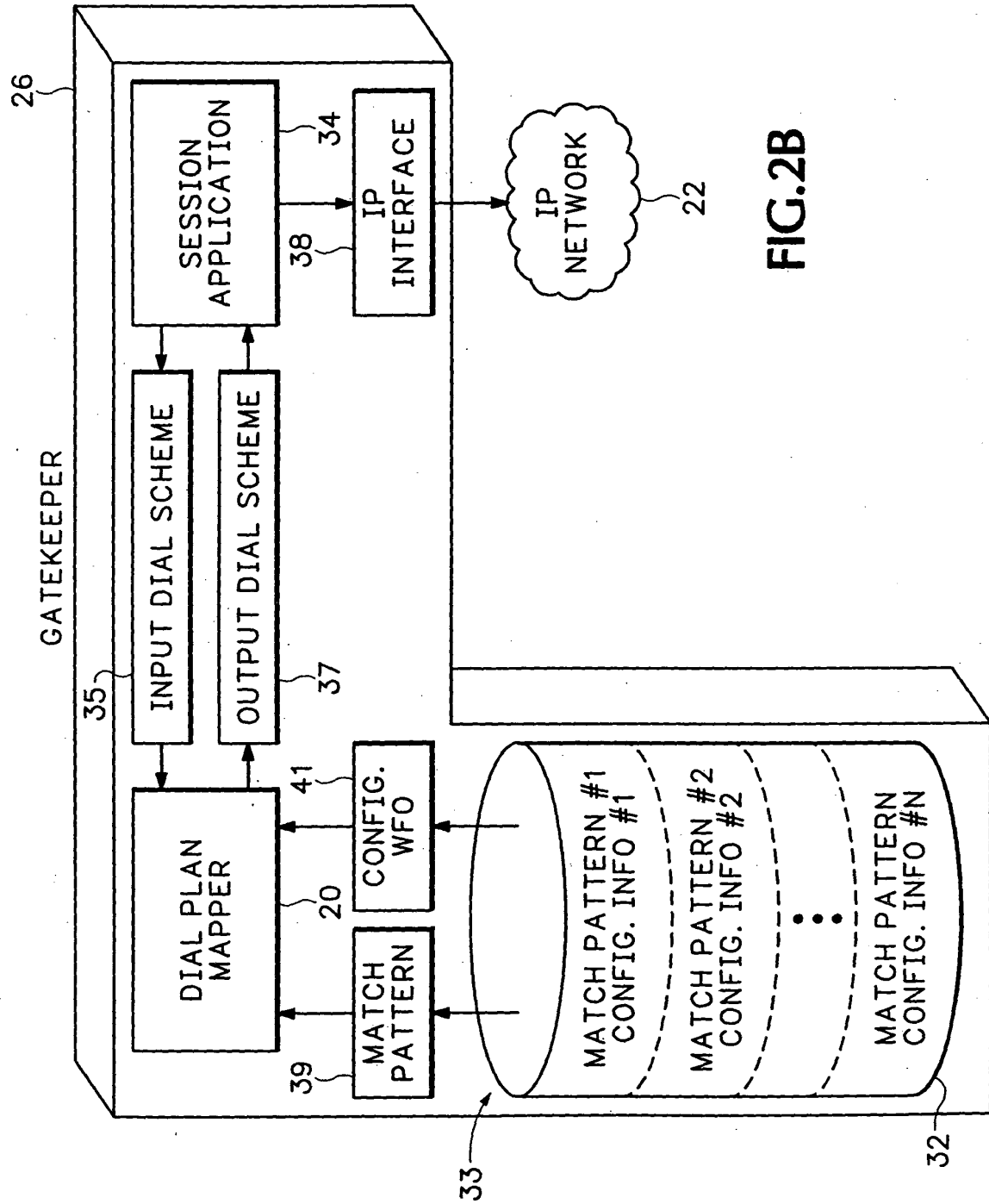


FIG. 2B

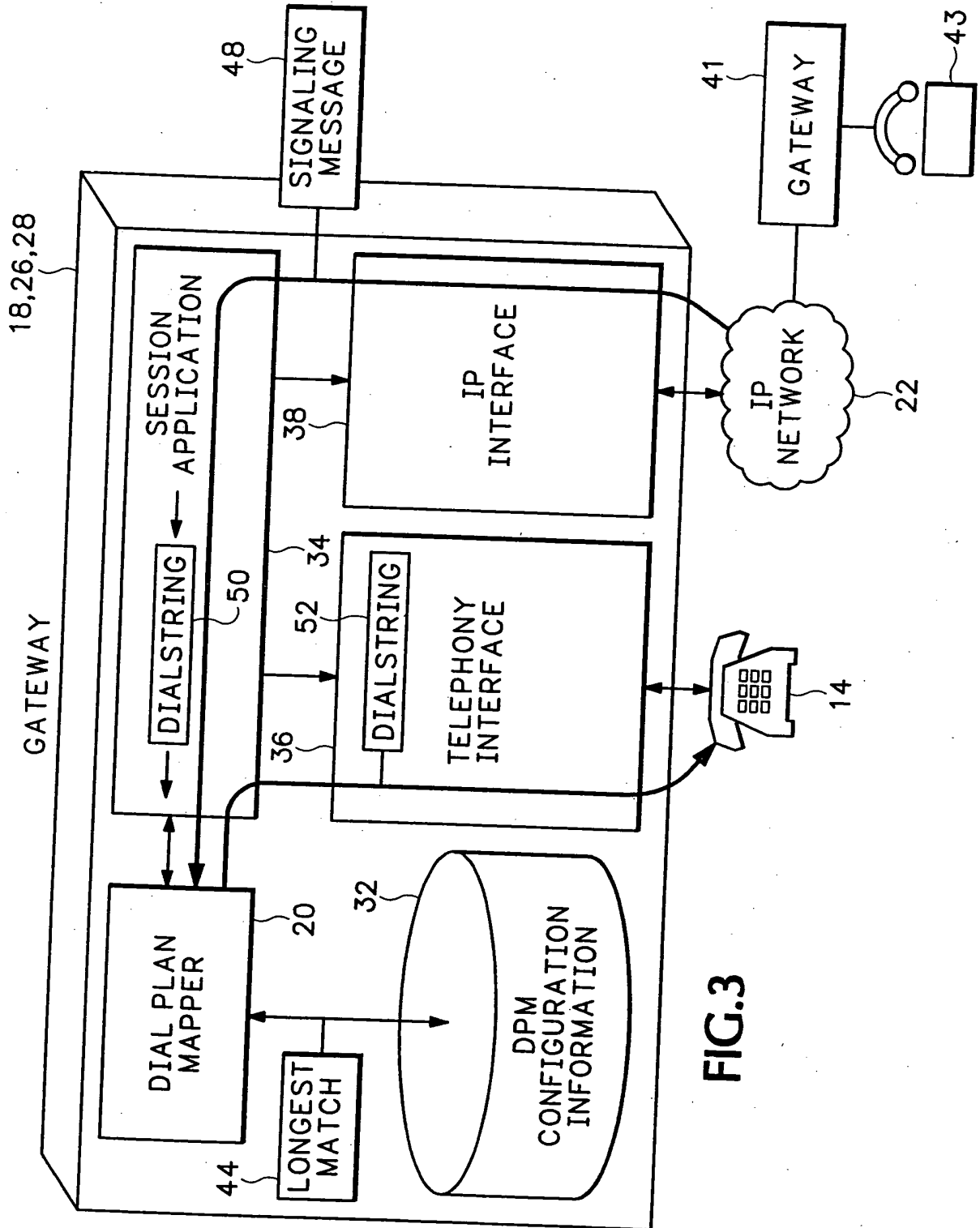


FIG.3

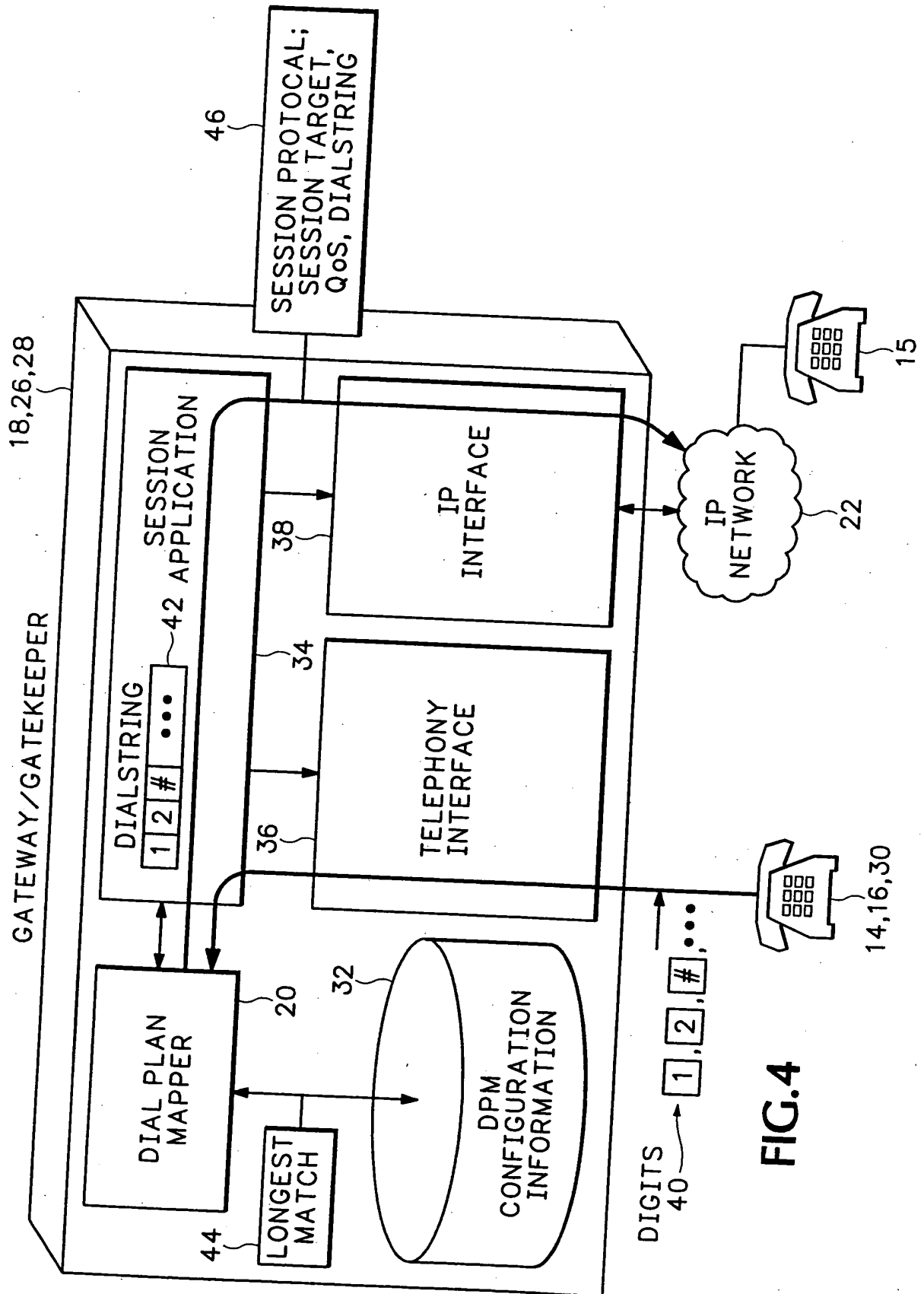
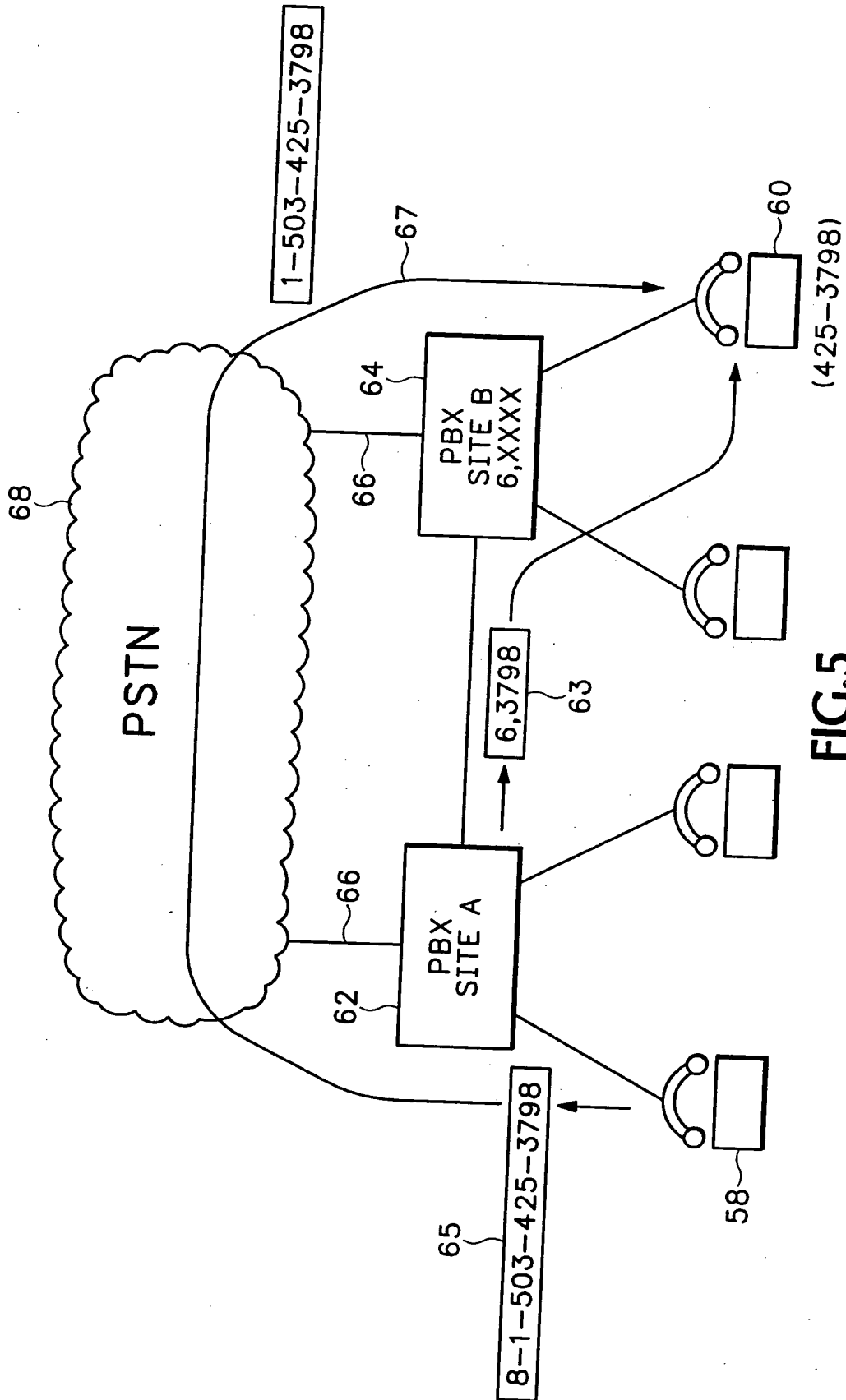


FIG.4



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Input or Output	Description
Dialstring	A string of dial tokens - also used to represent stored phone numbers, such as the calling line
matched	Tells how many of the digits in the dialed number were used to match the destination phone number
Session Protocol	A signaling protocol to use, e.g. H.323, SIP
Session Target	A string describing the <u>target</u> for the call
QoS	A way to specify what quality of service to request and accept for the call
Result	An indication of whether the mapping succeeded, failed, or needs more input
Output Dialstring	The processed dialstring, with possibly prepended or appended digits

I/O FOR DIAL PLAN MAPPER

FIG.6

Field	Description
Match Pattern	A generalized regular expression (see below)
Session Protocol	Name of session protocol to use for calls matching this entry
Session Target	A string specifying either the host which is the destination of the call, or something which can be used to obtain same. The string can contain a substitution specification so that portions of the dial string may be inserted to form the final session target specifier. There are a number of different forms for the session target string, which are enumerated later on in this specification.
QoS to Request	Quality of Service to request on calls to this destination. One of: BestEffort, ControlledLoad, GuaranteedDelay.
QoS to Accept	Minimal Quality of Service to accept on calls to this destination. One of: BestEffort, ControlledLoad, GuaranteedDelay. Must be lower or equal to the QoS to request.
Prepend and Append digits	Digits to prepend and/or append to the processed dialed number if this entry is matched
Security information	Variables indicating whether to accept or reject this call, and whether to suppress or transmit the calling party information to the receiving host.

FIG.7

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Plan Element	Regular Expression	Description
XXXX	[1-7][0-9]{3}	Matches a four digit extension, which can't start with 0, 9 or 8
9-<local POTS number> or 8-<long distance POTS number>	[89]	Matches a "9" as the initial digit. The rest of the POTS number has to be handled by the session protocol. Note that this syntax works because the dial plan mapper must be called as each digit is accumulated and not just when convenient.
0	0	Matches a "0" as the initial digit

FIG.8

Null	No session protocol is involved. Either the packet voice can be sent back directly to a local telephony interface, or an RTP stream can be set up immediately to the matching destination.
H.323	ITU Videoconferencing Protocols - Session Target points to H.323 Endpoint
H.323Gatekeeper	ITU Videoconferencing Protocols - Session Target points to H.323 Gatekeeper
SIP	Internet Simple Conference Invitation Protocol
SAP	Internet Session Announcement Protocol

FIG.9

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Example	Meaning
local:2	The session target is voice interface 2 on the local machine
ipv4:[171.68.13.55]:1006	The session target is the IP version 4 address of 171.68.13.55 and port 1006
dns:pots.cisco.com:1661	The session target is the IP host with dns name pots.cisco.com, and port 1661
dialstring:1919444\$u\$	Replace the input dialstring with the string to the right of the colon and recursively perform the lookup.
dial_plan_service://cisco/HOST, PORT/CALLER=\$s\$, CALLEE=\$d\$	The session target is obtained by using the <u>service location protocol</u> , asking for the <u>dial_plan_service</u> for cisco to find the right IP HOST and PORT to handle the call from the local phone \$s\$ dialing the dialstring \$d\$. This example shows the string substitution capability in the syntax.

FIG.10

Session Protocol	Meaning of a null Session Target
H.323	Treat as if localhost: had been specified with the well known port for the H.323 listener
H.323Gatekeeper	Use RAS discovery to locate the Gatekeeper

FIG.11